FIG. 1

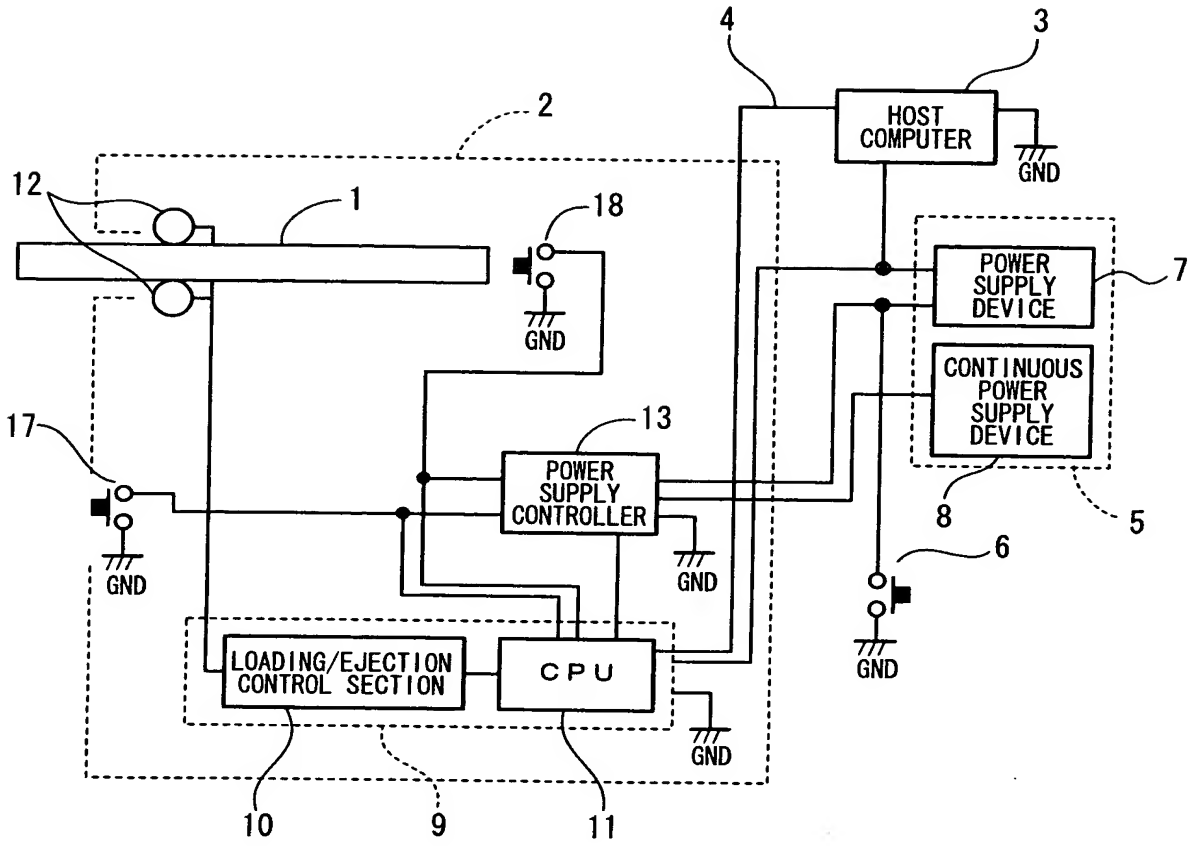

4
3
2
HOST COMPUTER
GND
12
1
18
GND
POWER SUPPLY DEVICE
7
CONTINUOUS POWER SUPPLY DEVICE
17
13
POWER SUPPLY CONTROLLER
8
5
GND
GND
6
GND
LOADING/EJECTION CONTROL SECTION
CPU
GND
10
9
11

FIG. 2

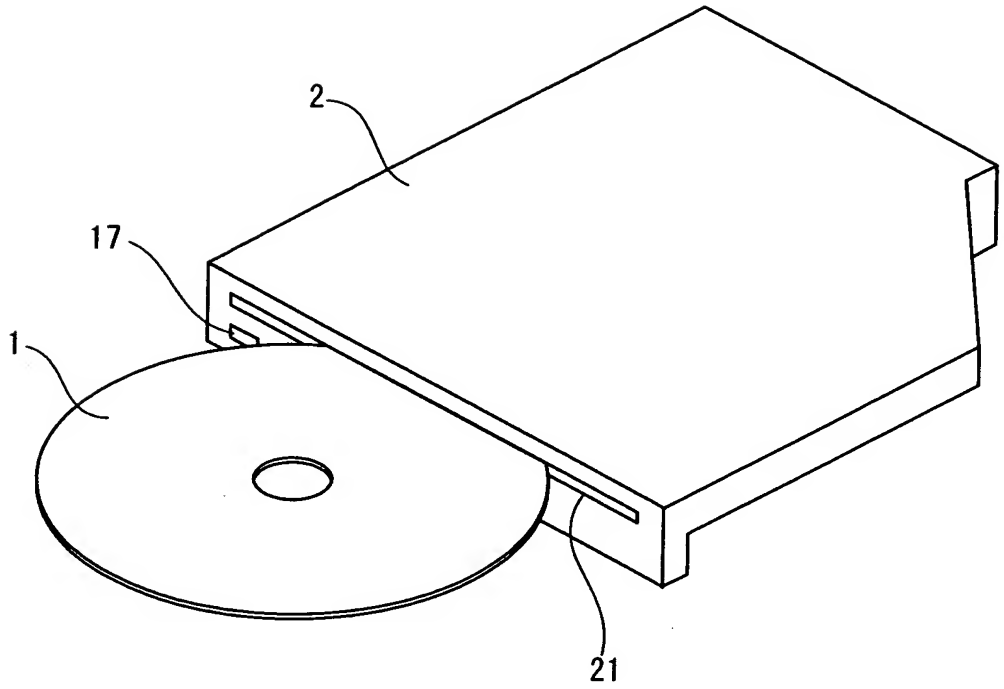


FIG. 3A

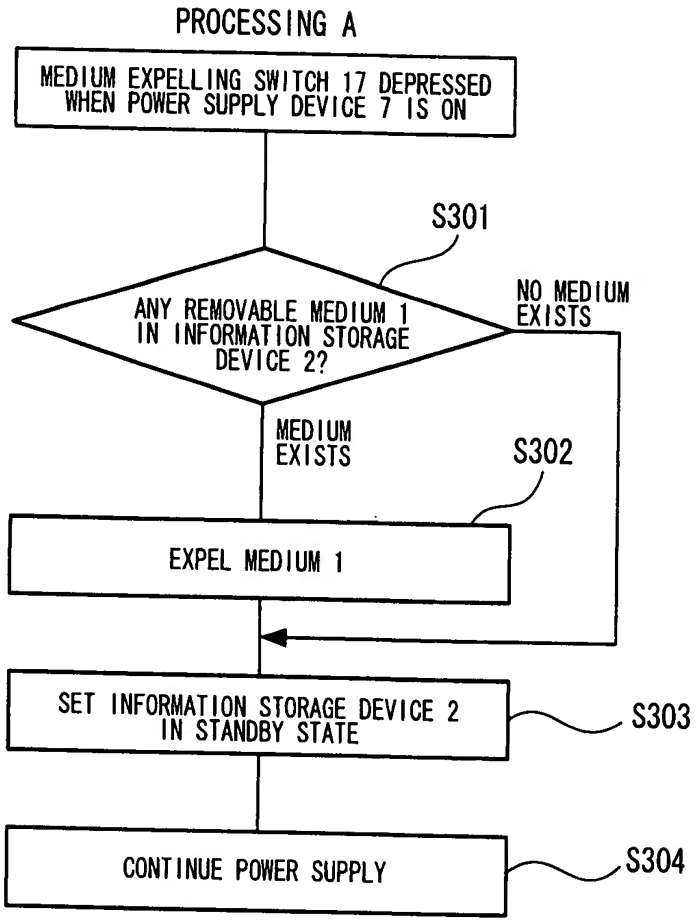

PROCESSING A
MEDIUM EXPELLING SWITCH 17 DEPRESSED WHEN POWER SUPPLY DEVICE 7 IS ON
S301
ANY REMOVABLE MEDIUM 1 IN INFORMATION STORAGE DEVICE 2?
NO MEDIUM EXISTS
MEDIUM EXISTS
S302
EXPEL MEDIUM 1
SET INFORMATION STORAGE DEVICE 2 IN STANDBY STATE
S303
CONTINUE POWER SUPPLY
S304

FIG. 3B

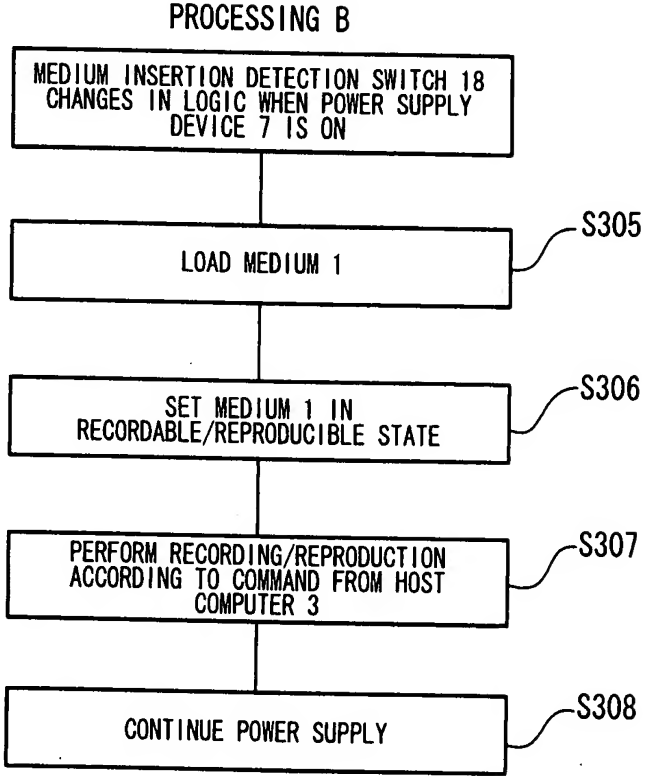

PROCESSING B
MEDIUM INSERTION DETECTION SWITCH 18 CHANGES IN LOGIC WHEN POWER SUPPLY DEVICE 7 IS ON
LOAD MEDIUM 1
S305
SET MEDIUM 1 IN RECORDABLE/REPRODUCIBLE STATE
S306
PERFORM RECORDING/REPRODUCTION ACCORDING TO COMMAND FROM HOST COMPUTER 3
S307
CONTINUE POWER SUPPLY
S308

FIG. 4A

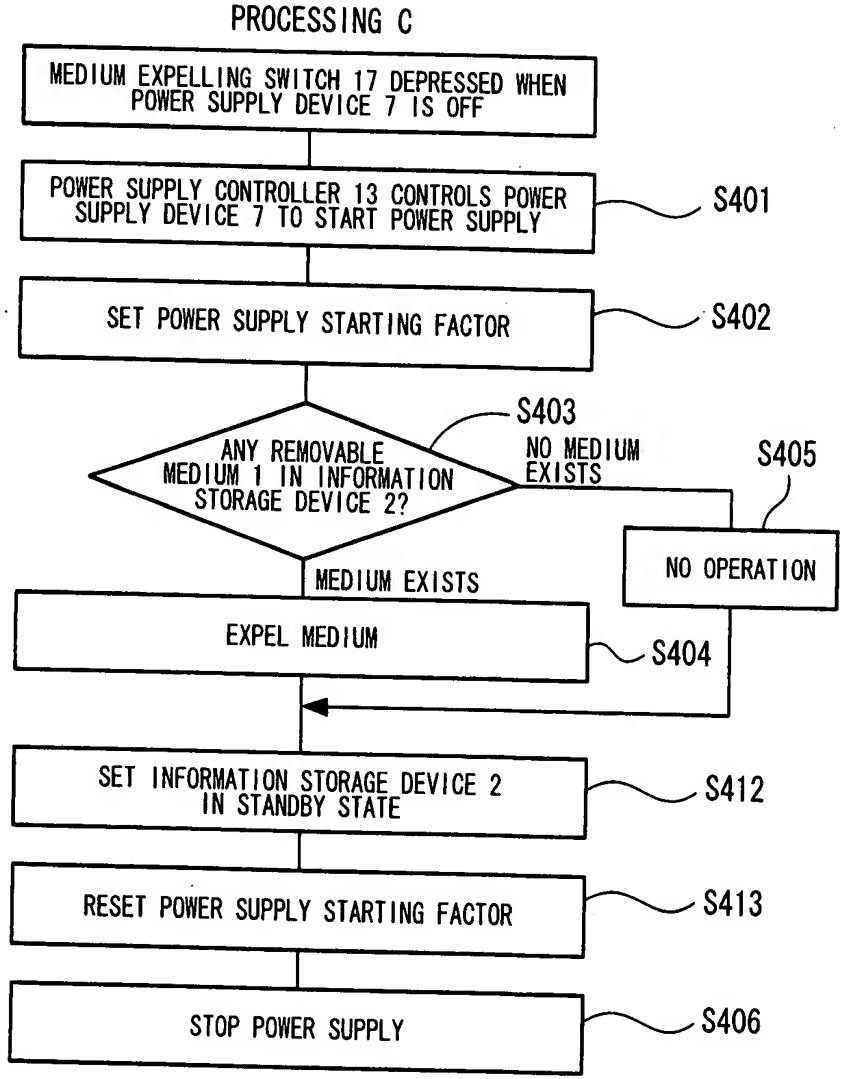

PROCESSING C
MEDIUM EXPELLING SWITCH 17 DEPRESSED WHEN POWER SUPPLY DEVICE 7 IS OFF
POWER SUPPLY CONTROLLER 13 CONTROLS POWER SUPPLY DEVICE 7 TO START POWER SUPPLY
S401
SET POWER SUPPLY STARTING FACTOR
S402
S403
ANY REMOVABLE MEDIUM 1 IN INFORMATION STORAGE DEVICE 2?
NO MEDIUM EXISTS
S405
NO OPERATION
MEDIUM EXISTS
EXPEL MEDIUM
S404
SET INFORMATION STORAGE DEVICE 2 IN STANDBY STATE
S412
RESET POWER SUPPLY STARTING FACTOR
S413
STOP POWER SUPPLY
S406

FIG. 4B

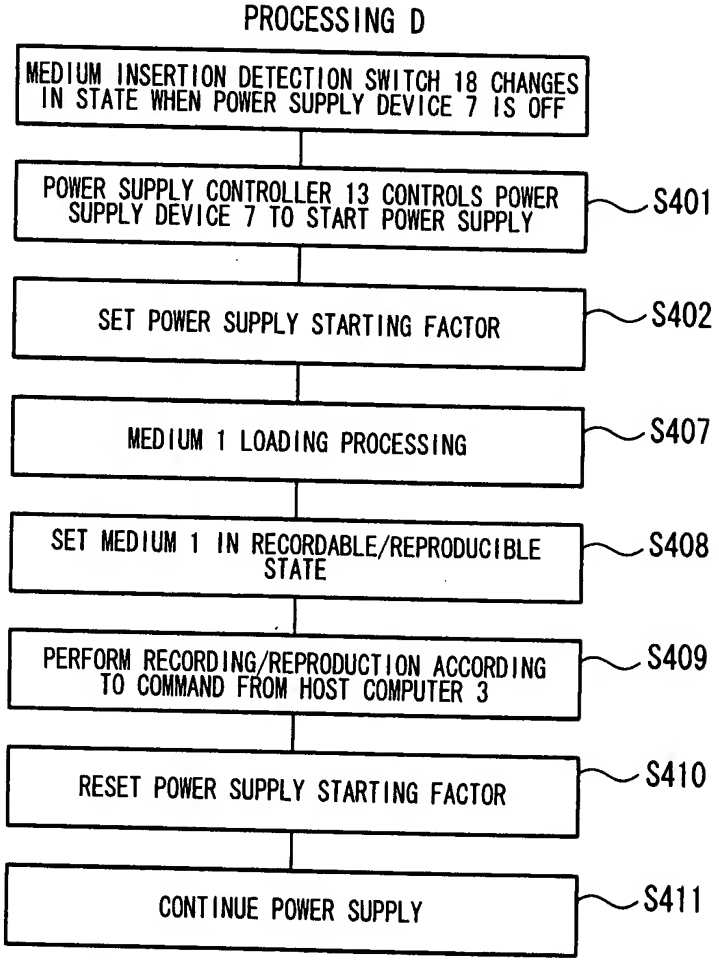

PROCESSING D
MEDIUM INSERTION DETECTION SWITCH 18 CHANGES IN STATE WHEN POWER SUPPLY DEVICE 7 IS OFF
POWER SUPPLY CONTROLLER 13 CONTROLS POWER SUPPLY DEVICE 7 TO START POWER SUPPLY
S401
SET POWER SUPPLY STARTING FACTOR
S402
MEDIUM 1 LOADING PROCESSING
S407
SET MEDIUM 1 IN RECORDABLE/REPRODUCIBLE STATE
S408
PERFORM RECORDING/REPRODUCTION ACCORDING TO COMMAND FROM HOST COMPUTER 3
S409
RESET POWER SUPPLY STARTING FACTOR
S410
CONTINUE POWER SUPPLY
S411

FIG. 5A

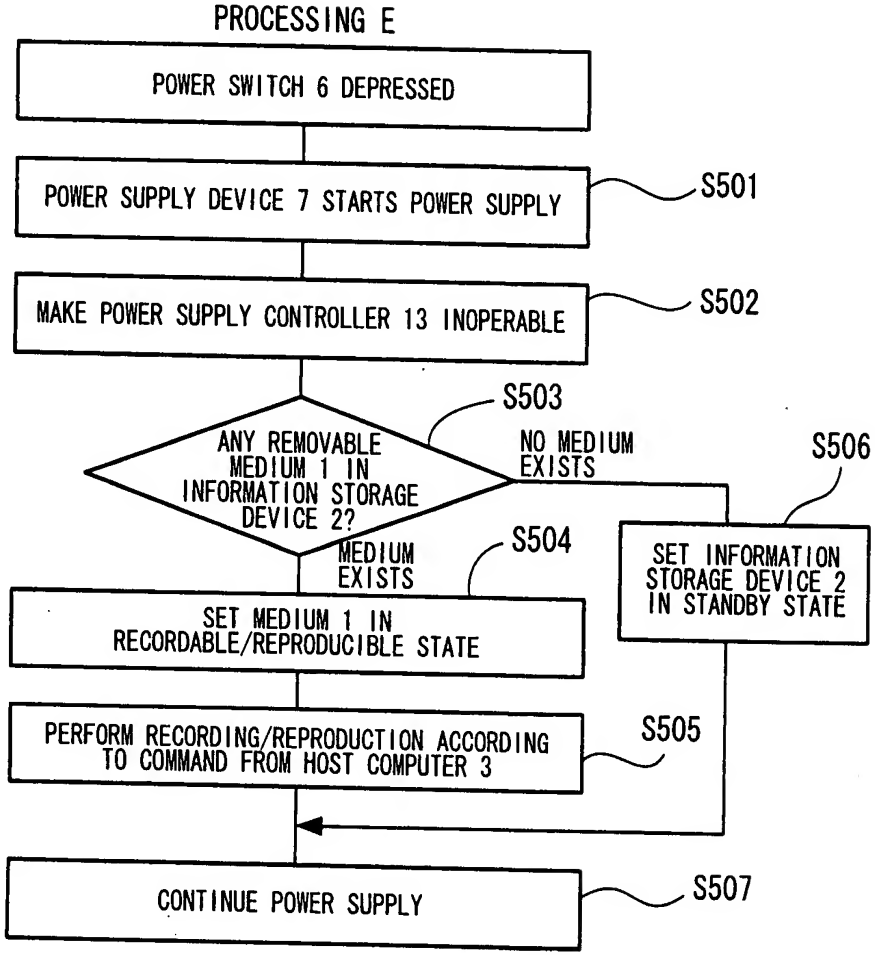

PROCESSING E
POWER SWITCH 6 DEPRESSED
POWER SUPPLY DEVICE 7 STARTS POWER SUPPLY
S501
MAKE POWER SUPPLY CONTROLLER 13 INOPERABLE
S502
S503
ANY REMOVABLE MEDIUM 1 IN INFORMATION STORAGE DEVICE 2?
NO MEDIUM EXISTS
S506
MEDIUM EXISTS
S504
SET INFORMATION STORAGE DEVICE 2 IN STANDBY STATE
SET MEDIUM 1 IN RECORDABLE/REPRODUCIBLE STATE
PERFORM RECORDING/REPRODUCTION ACCORDING TO COMMAND FROM HOST COMPUTER 3
S505
CONTINUE POWER SUPPLY
S507

FIG. 5B

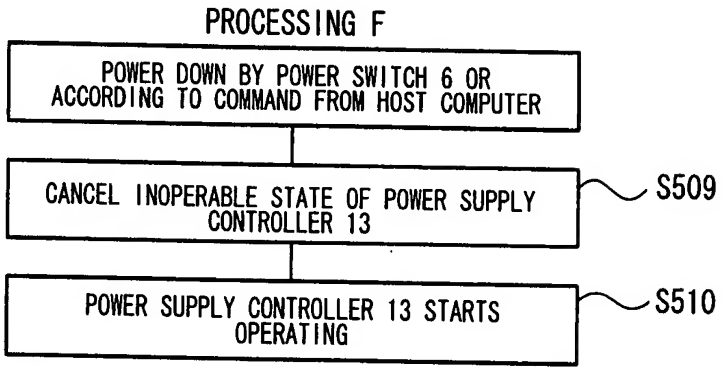

PROCESSING F
POWER DOWN BY POWER SWITCH 6 OR ACCORDING TO COMMAND FROM HOST COMPUTER
CANCEL INOPERABLE STATE OF POWER SUPPLY CONTROLLER 13
S509
POWER SUPPLY CONTROLLER 13 STARTS OPERATING
S510

FIG. 6

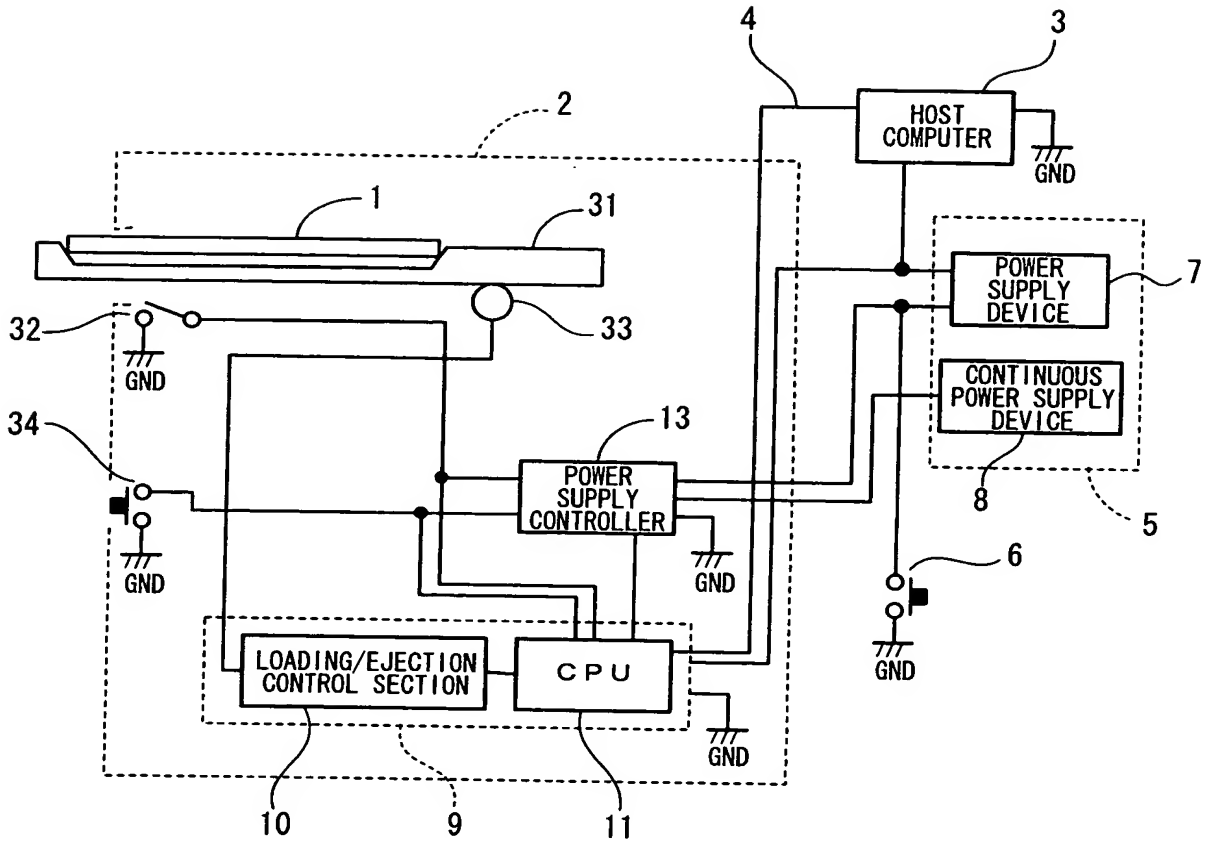

4
3
2
HOST COMPUTER
GND
1
31
POWER SUPPLY DEVICE
7
32
33
GND
CONTINUOUS POWER SUPPLY DEVICE
34
13
POWER SUPPLY CONTROLLER
8
5
GND
GND
6
GND
LOADING/EJECTION CONTROL SECTION
CPU
GND
10
9
11

FIG. 7

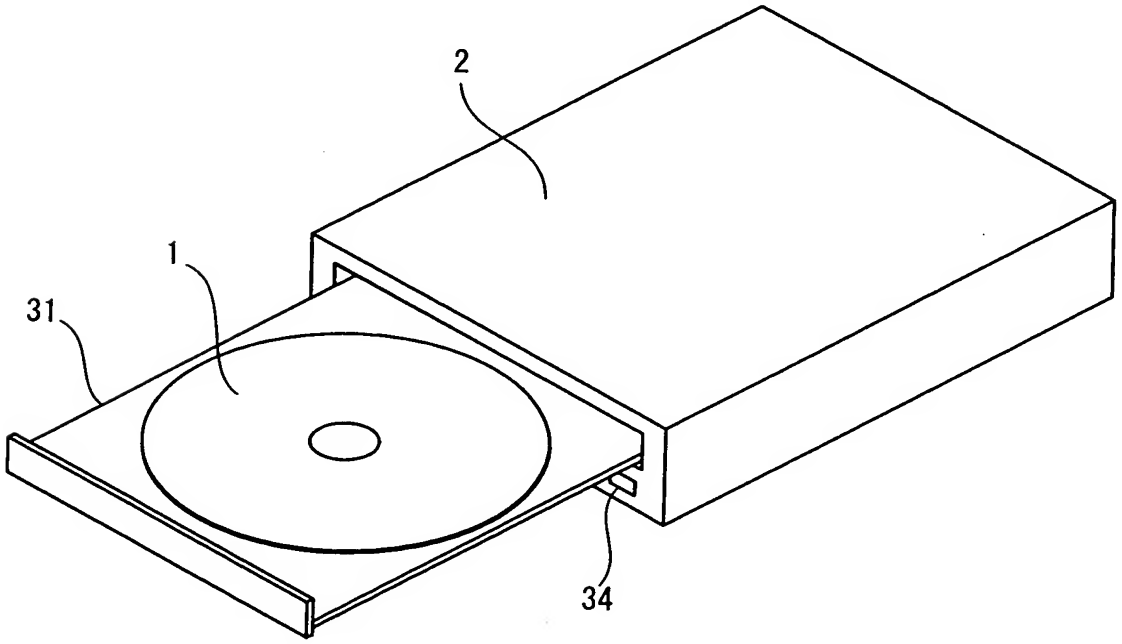

2
1
31
34

FIG. 8A

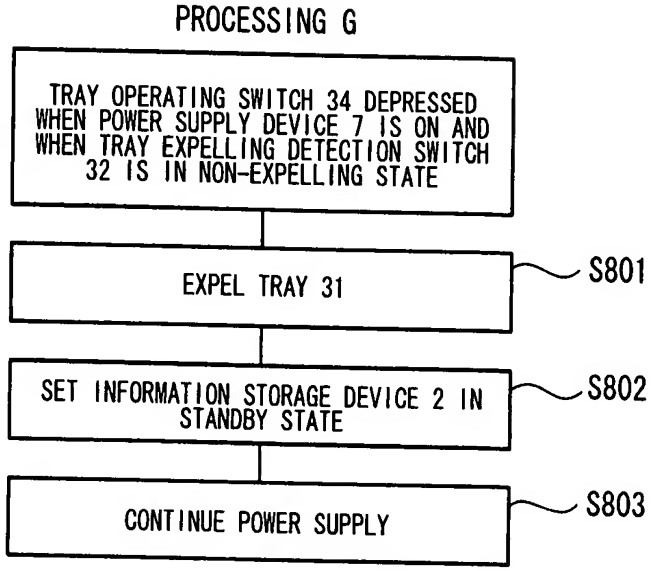

PROCESSING G
TRAY OPERATING SWITCH 34 DEPRESSED WHEN POWER SUPPLY DEVICE 7 IS ON AND WHEN TRAY EXPELLING DETECTION SWITCH 32 IS IN NON-EXPELLING STATE
EXPEL TRAY 31
S801
SET INFORMATION STORAGE DEVICE 2 IN STANDBY STATE
S802
CONTINUE POWER SUPPLY
S803

FIG. 8B

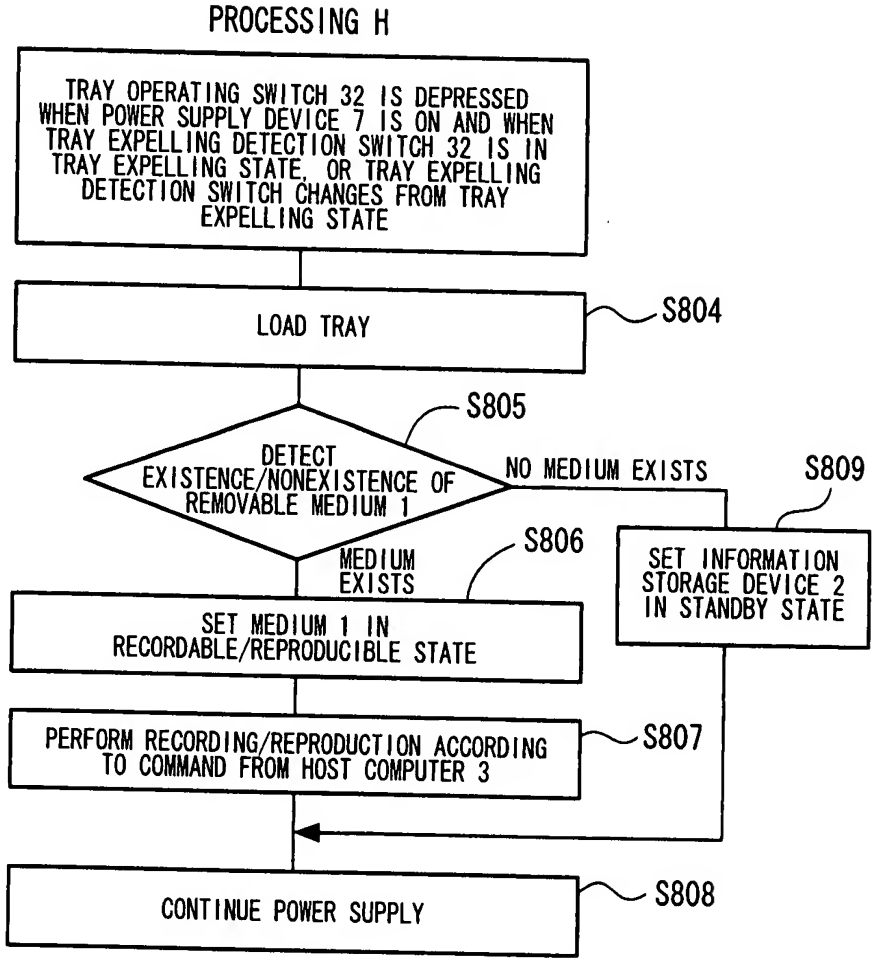

PROCESSING H
TRAY OPERATING SWITCH 32 IS DEPRESSED WHEN POWER SUPPLY DEVICE 7 IS ON AND WHEN TRAY EXPELLING DETECTION SWITCH 32 IS IN TRAY EXPELLING STATE, OR TRAY EXPELLING DETECTION SWITCH CHANGES FROM TRAY EXPELLING STATE
LOAD TRAY
S804
S805
DETECT EXISTENCE/NONEXISTENCE OF REMOVABLE MEDIUM 1
NO MEDIUM EXISTS
S809
SET INFORMATION STORAGE DEVICE 2 IN STANDBY STATE
MEDIUM EXISTS
S806
SET MEDIUM 1 IN RECORDABLE/REPRODUCIBLE STATE
PERFORM RECORDING/REPRODUCTION ACCORDING TO COMMAND FROM HOST COMPUTER 3
S807
CONTINUE POWER SUPPLY
S808

FIG. 9A

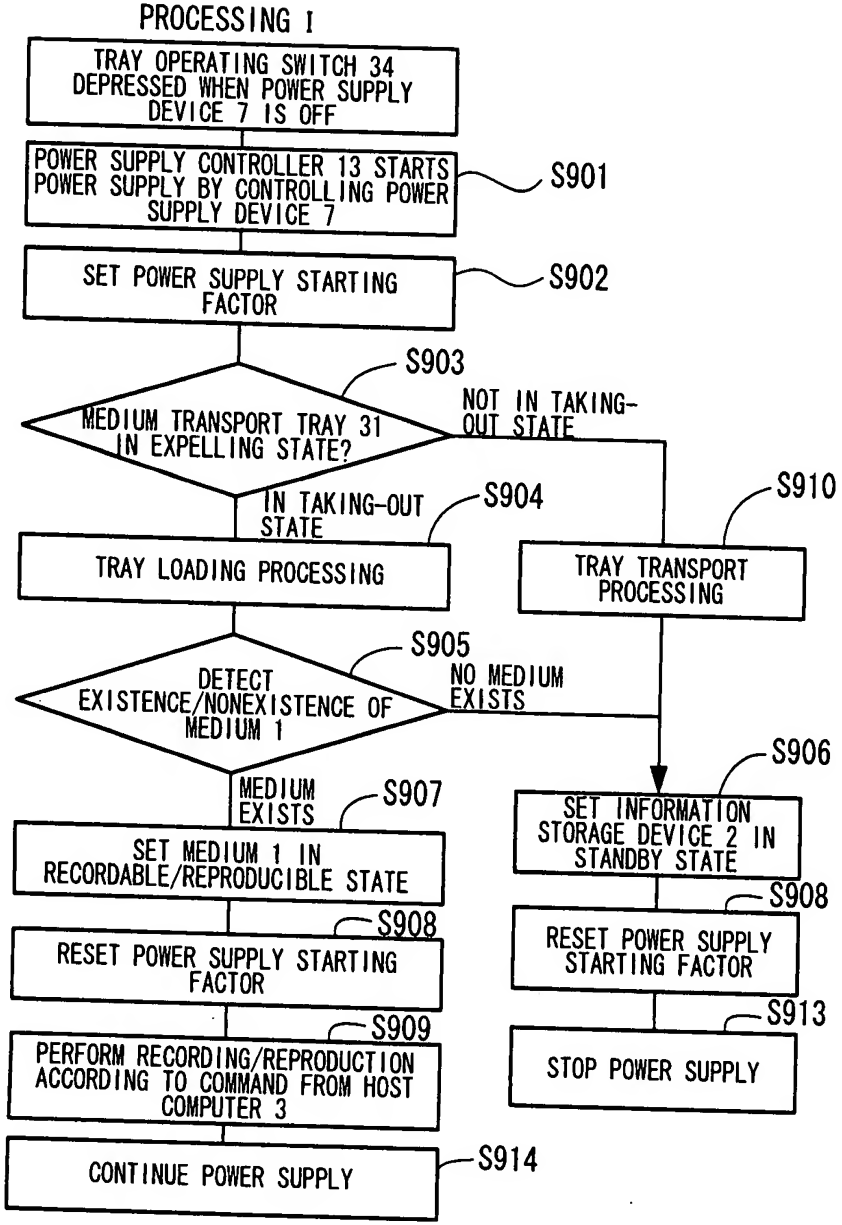

PROCESSING I
TRAY OPERATING SWITCH 34 DEPRESSED WHEN POWER SUPPLY DEVICE 7 IS OFF
POWER SUPPLY CONTROLLER 13 STARTS POWER SUPPLY BY CONTROLLING POWER SUPPLY DEVICE 7
S901
SET POWER SUPPLY STARTING FACTOR
S902
S903
MEDIUM TRANSPORT TRAY 31 IN EXPELLING STATE?
NOT IN TAKING-OUT STATE
IN TAKING-OUT STATE
S904
TRAY LOADING PROCESSING
S910
TRAY TRANSPORT PROCESSING
S905
DETECT EXISTENCE/NONEXISTENCE OF MEDIUM 1
NO MEDIUM EXISTS
MEDIUM EXISTS
S907
SET MEDIUM 1 IN RECORDABLE/REPRODUCIBLE STATE
S906
SET INFORMATION STORAGE DEVICE 2 IN STANDBY STATE
S908
RESET POWER SUPPLY STARTING FACTOR
S908
RESET POWER SUPPLY STARTING FACTOR
S909
PERFORM RECORDING/REPRODUCTION ACCORDING TO COMMAND FROM HOST COMPUTER 3
S913
STOP POWER SUPPLY
CONTINUE POWER SUPPLY
S914

FIG. 9B

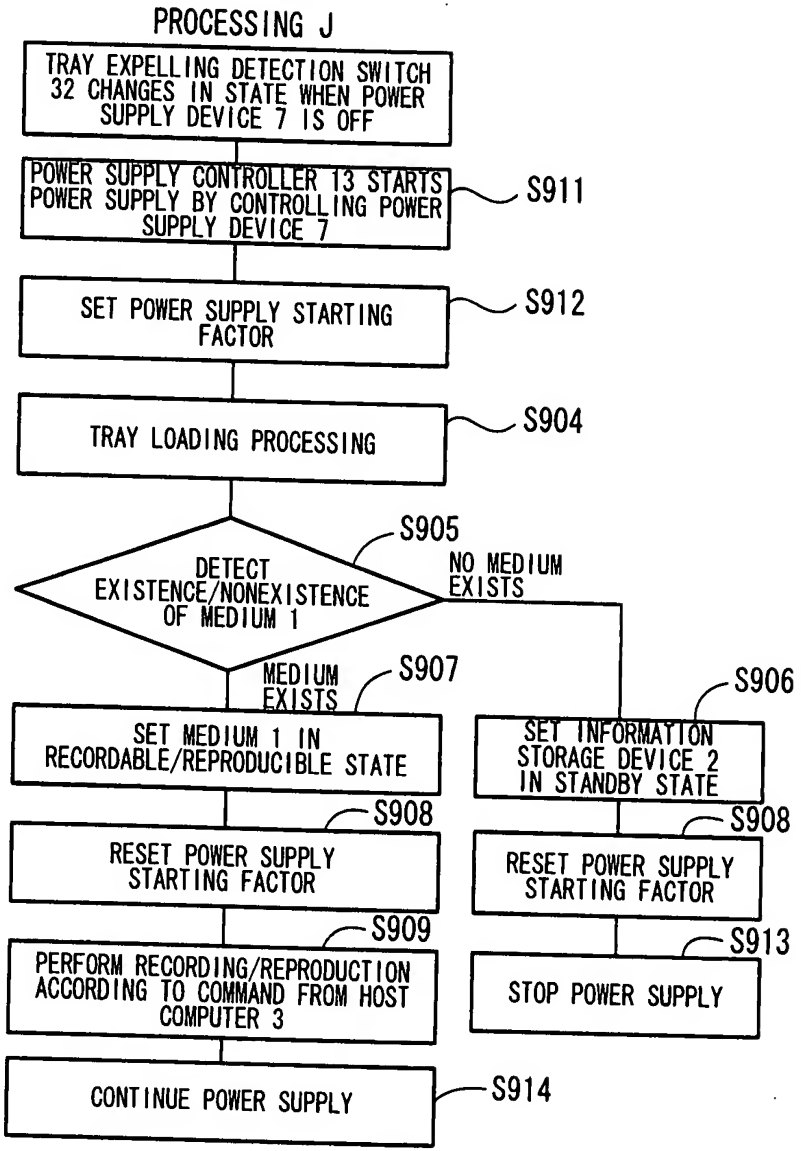

PROCESSING J
TRAY EXPELLING DETECTION SWITCH 32 CHANGES IN STATE WHEN POWER SUPPLY DEVICE 7 IS OFF
POWER SUPPLY CONTROLLER 13 STARTS POWER SUPPLY BY CONTROLLING POWER SUPPLY DEVICE 7
S911
SET POWER SUPPLY STARTING FACTOR
S912
TRAY LOADING PROCESSING
S904
S905
DETECT EXISTENCE/NONEXISTENCE OF MEDIUM 1
NO MEDIUM EXISTS
MEDIUM EXISTS
S907
SET MEDIUM 1 IN RECORDABLE/REPRODUCIBLE STATE
S906
SET INFORMATION STORAGE DEVICE 2 IN STANDBY STATE
S908
RESET POWER SUPPLY STARTING FACTOR
S908
RESET POWER SUPPLY STARTING FACTOR
S909
PERFORM RECORDING/REPRODUCTION ACCORDING TO COMMAND FROM HOST COMPUTER 3
S913
STOP POWER SUPPLY
CONTINUE POWER SUPPLY
S914

FIG. 10

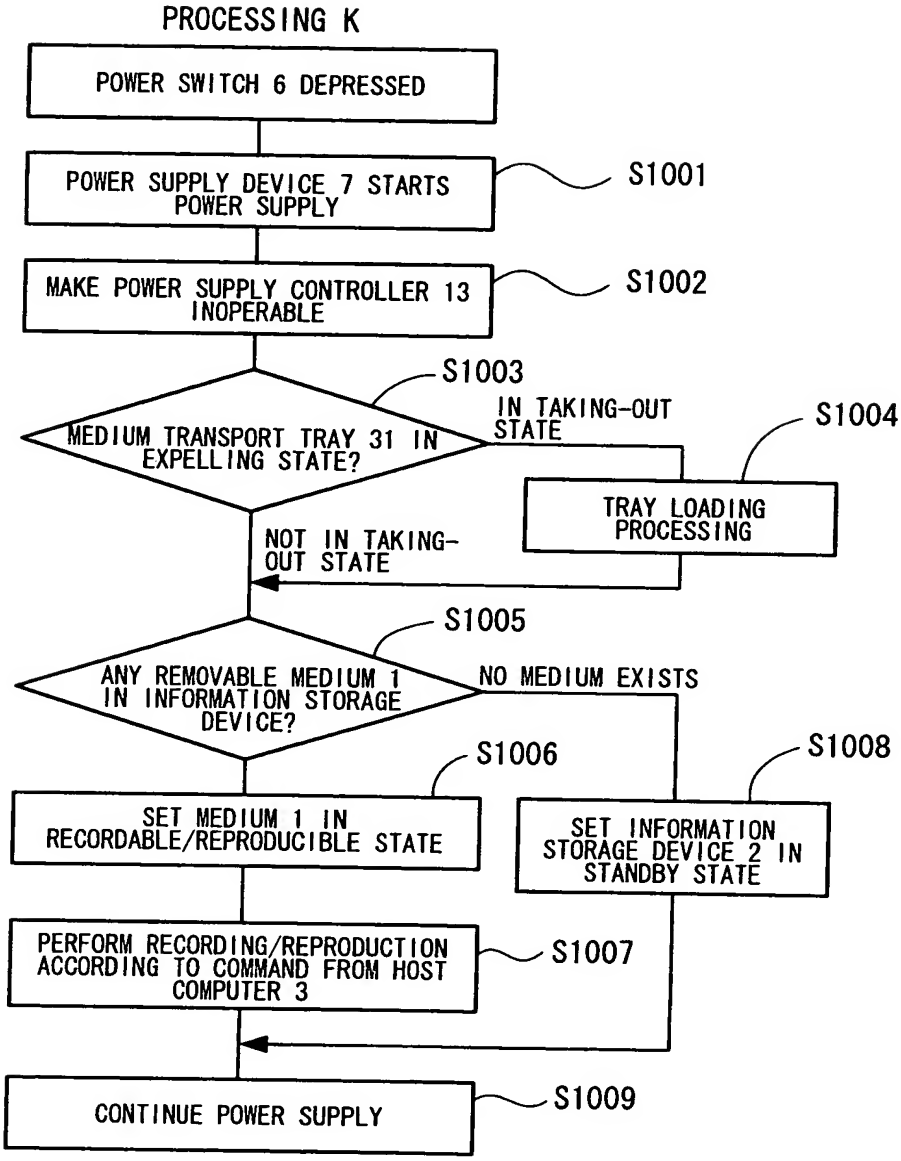

PROCESSING K
POWER SWITCH 6 DEPRESSED
POWER SUPPLY DEVICE 7 STARTS POWER SUPPLY
S1001
MAKE POWER SUPPLY CONTROLLER 13 INOPERABLE
S1002
S1003
MEDIUM TRANSPORT TRAY 31 IN EXPELLING STATE?
IN TAKING-OUT STATE
S1004
TRAY LOADING PROCESSING
NOT IN TAKING-OUT STATE
S1005
ANY REMOVABLE MEDIUM 1 IN INFORMATION STORAGE DEVICE?
NO MEDIUM EXISTS
S1006
S1008
SET MEDIUM 1 IN RECORDABLE/REPRODUCIBLE STATE
SET INFORMATION STORAGE DEVICE 2 IN STANDBY STATE
PERFORM RECORDING/REPRODUCTION ACCORDING TO COMMAND FROM HOST COMPUTER 3
S1007
CONTINUE POWER SUPPLY
S1009

FIG. 11

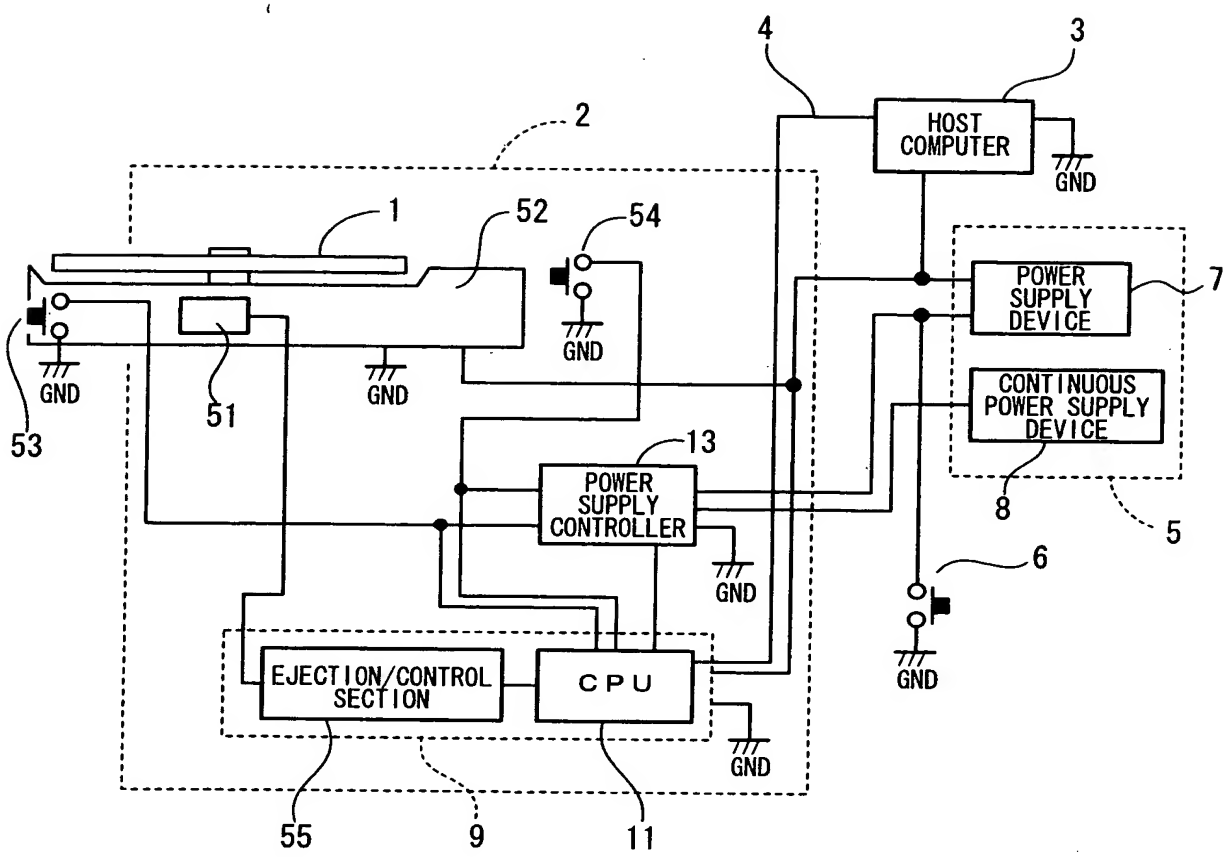

4
3
2
HOST COMPUTER
GND
1
52
54
POWER SUPPLY DEVICE
7
GND
GND
GND
53
51
CONTINUOUS POWER SUPPLY DEVICE
13
8
5
POWER SUPPLY CONTROLLER
GND
6
GND
EJECTION/CONTROL SECTION
CPU
GND
55
9
11

FIG. 12

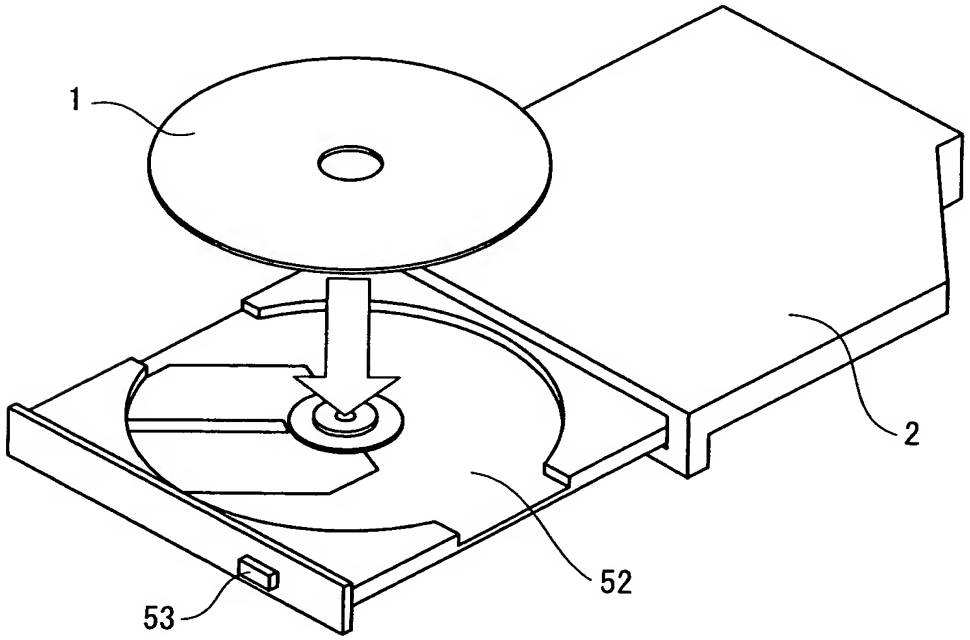

1
2
52
53

FIG. 13A

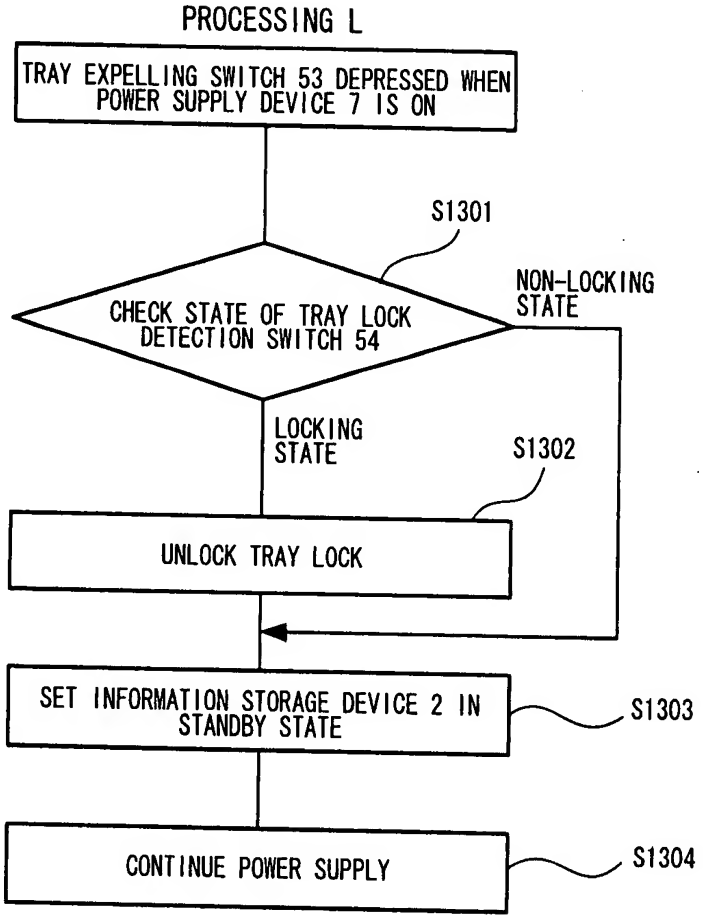


FIG. 13B

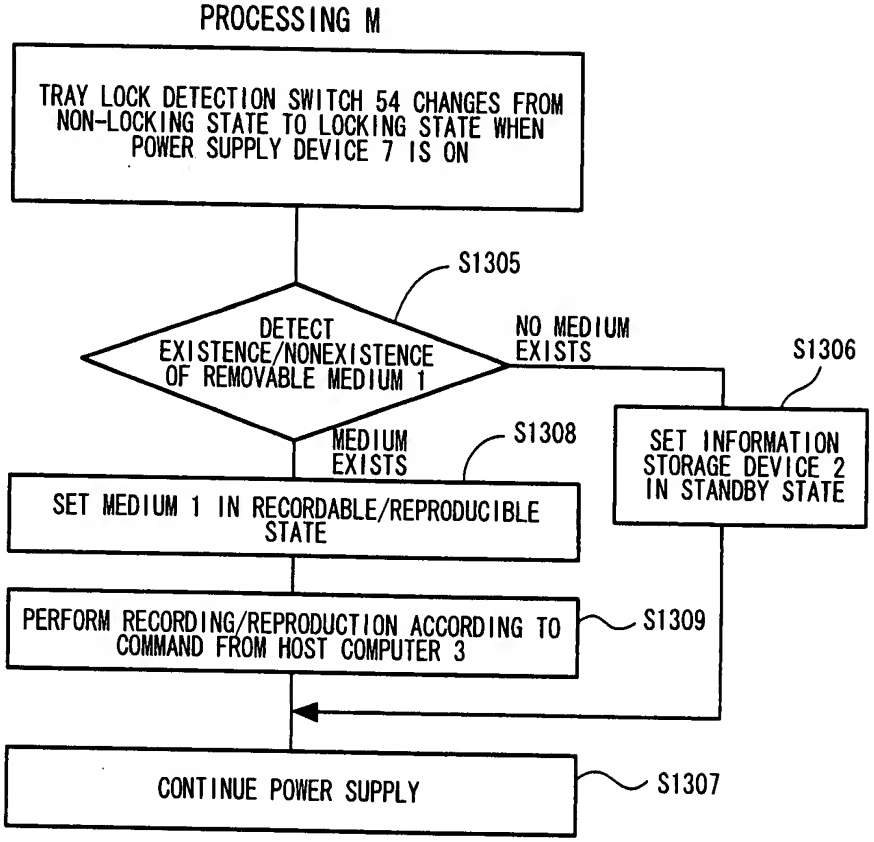


FIG. 14A

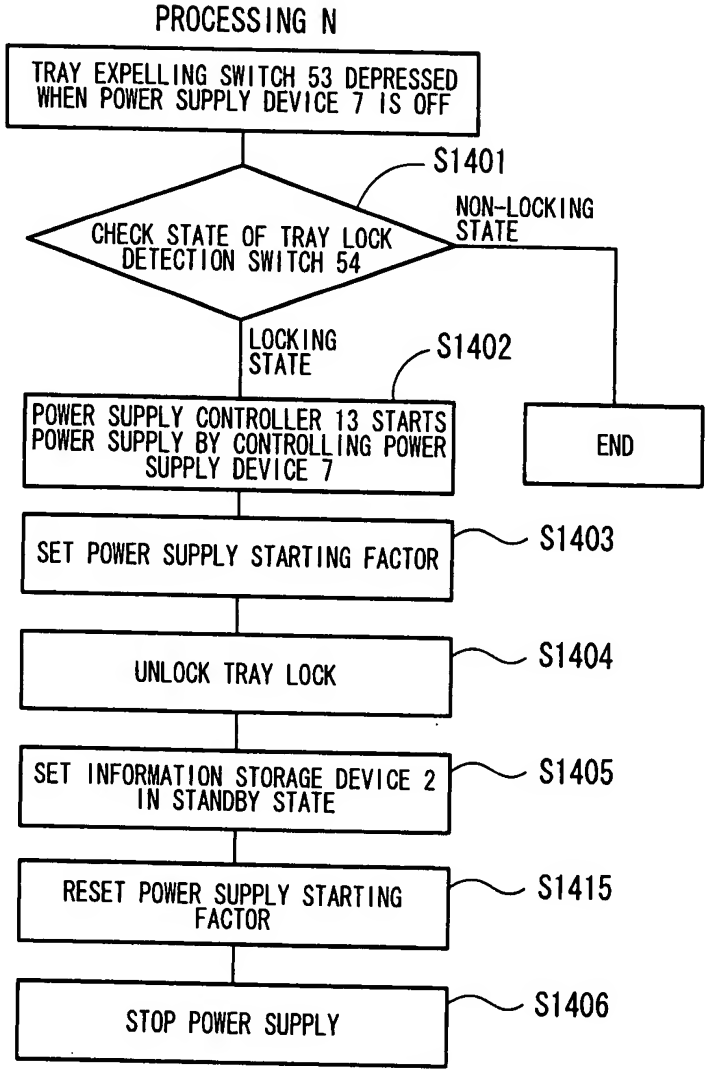


FIG. 14B

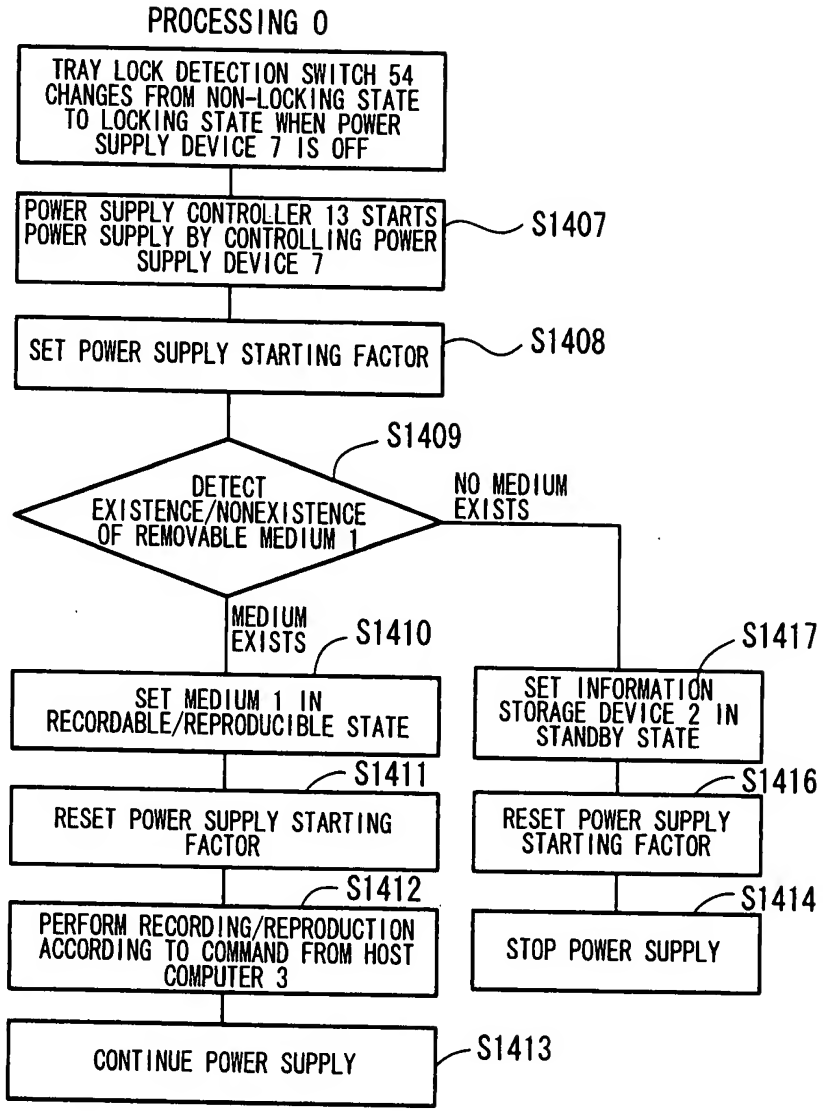


FIG. 15

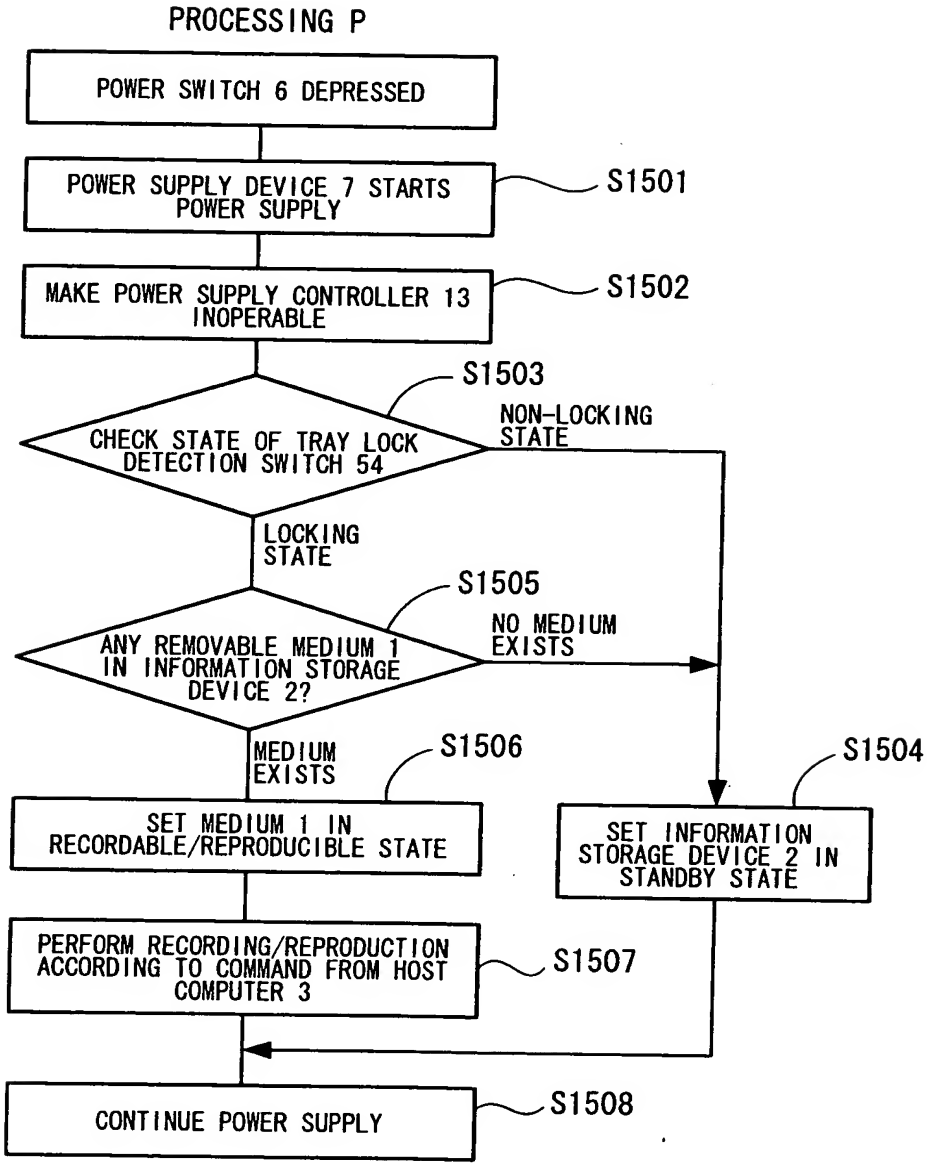

PROCESSING P
POWER SWITCH 6 DEPRESSED
POWER SUPPLY DEVICE 7 STARTS POWER SUPPLY
S1501
MAKE POWER SUPPLY CONTROLLER 13 INOPERABLE
S1502
S1503
CHECK STATE OF TRAY LOCK DETECTION SWITCH 54
NON-LOCKING STATE
LOCKING STATE
S1505
ANY REMOVABLE MEDIUM 1 IN INFORMATION STORAGE DEVICE 2?
NO MEDIUM EXISTS
MEDIUM EXISTS
S1506
SET MEDIUM 1 IN RECORDABLE/REPRODUCIBLE STATE
S1504
SET INFORMATION STORAGE DEVICE 2 IN STANDBY STATE
PERFORM RECORDING/REPRODUCTION ACCORDING TO COMMAND FROM HOST COMPUTER 3
S1507
CONTINUE POWER SUPPLY
S1508

FIG. 16

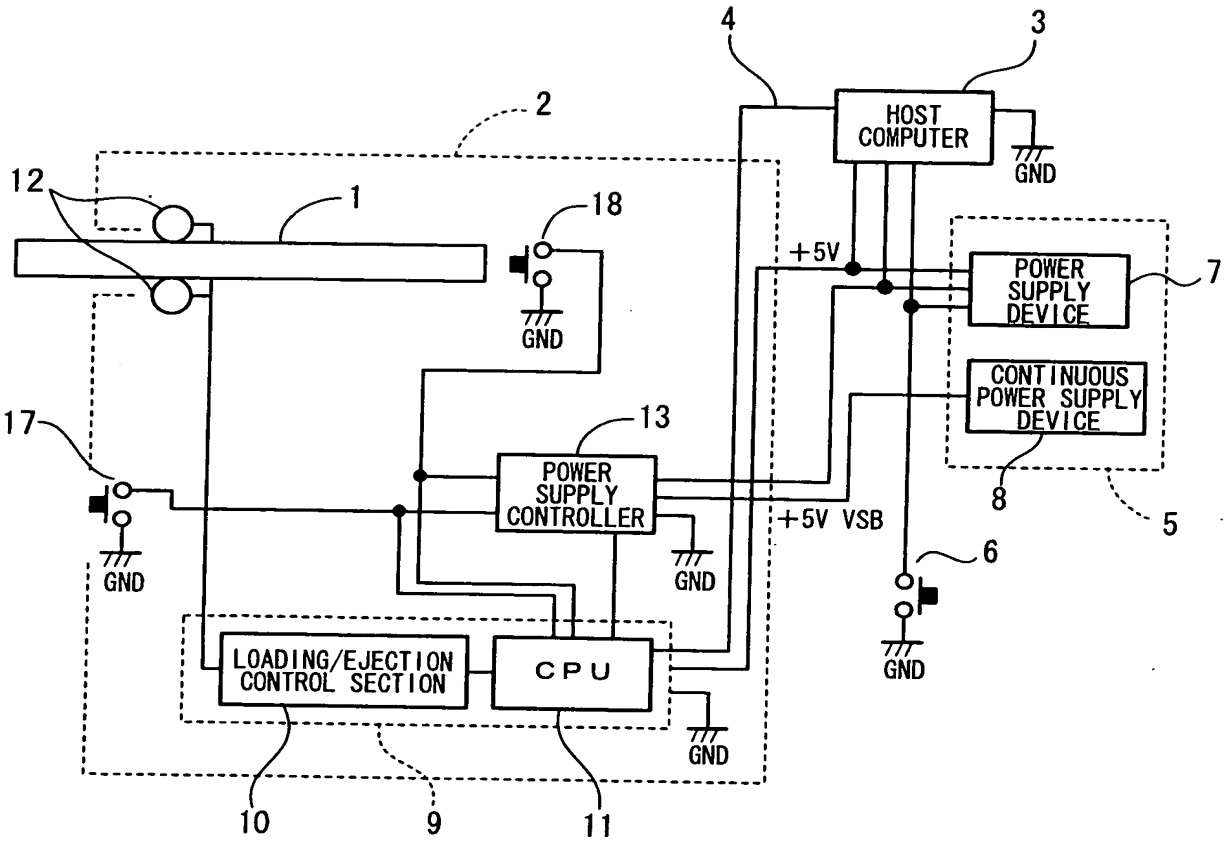

4
3
2
HOST COMPUTER
GND
12
1
18
+5V
POWER SUPPLY DEVICE
7
GND
CONTINUOUS POWER SUPPLY DEVICE
17
13
POWER SUPPLY CONTROLLER
+5V VSB
8
5
GND
GND
6
GND
LOADING/EJECTION CONTROL SECTION
CPU
GND
10
9
11

FIG. 17

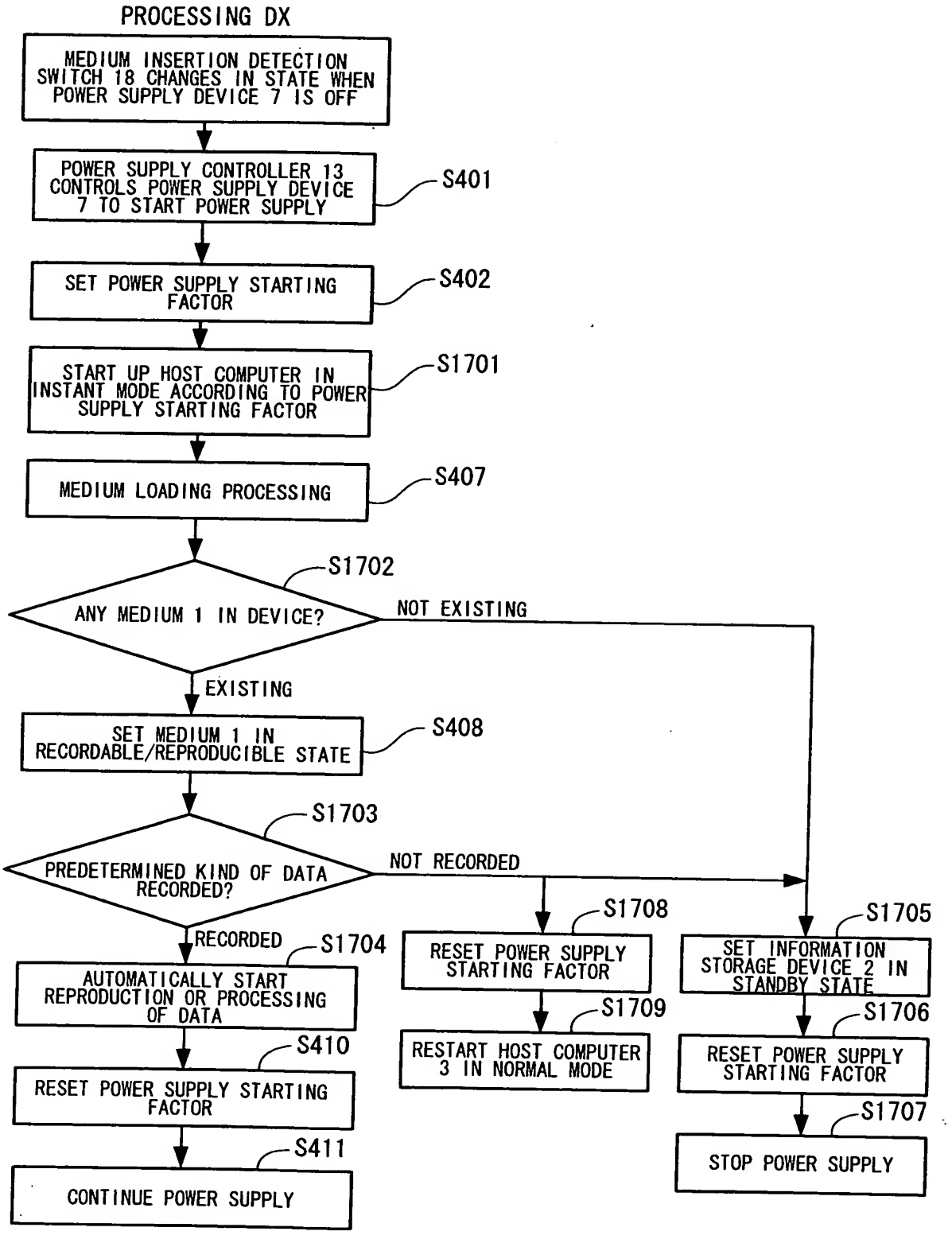
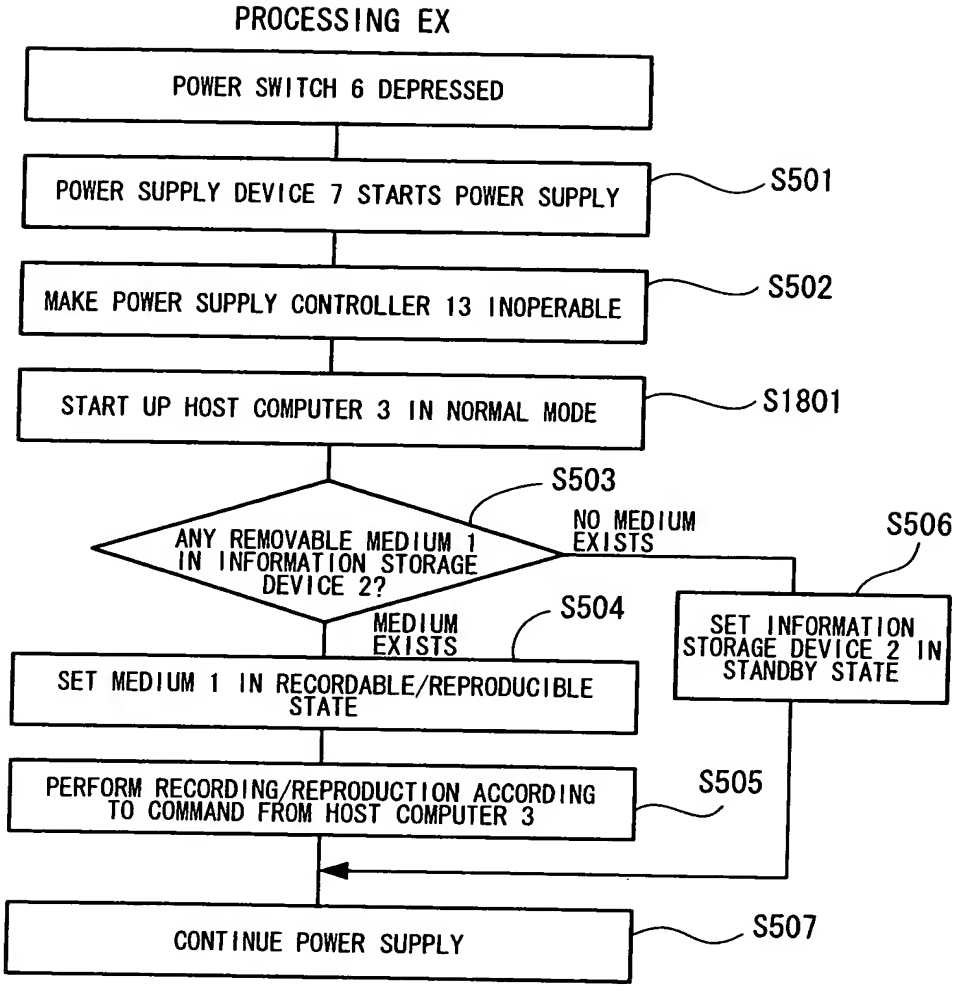

PROCESSING DX
MEDIUM INSERTION DETECTION SWITCH 18 CHANGES IN STATE WHEN POWER SUPPLY DEVICE 7 IS OFF
POWER SUPPLY CONTROLLER 13 CONTROLS POWER SUPPLY DEVICE 7 TO START POWER SUPPLY
S401
SET POWER SUPPLY STARTING FACTOR
S402
START UP HOST COMPUTER IN INSTANT MODE ACCORDING TO POWER SUPPLY STARTING FACTOR
S1701
MEDIUM LOADING PROCESSING
S407
S1702
ANY MEDIUM 1 IN DEVICE?
NOT EXISTING
EXISTING
SET MEDIUM 1 IN RECORDABLE/REPRODUCIBLE STATE
S408
S1703
PREDETERMINED KIND OF DATA RECORDED?
NOT RECORDED
RECORDED
S1704
AUTOMATICALLY START REPRODUCTION OR PROCESSING OF DATA
S410
RESET POWER SUPPLY STARTING FACTOR
S411
CONTINUE POWER SUPPLY
S1708
RESET POWER SUPPLY STARTING FACTOR
S1709
RESTART HOST COMPUTER 3 IN NORMAL MODE
S1705
SET INFORMATION STORAGE DEVICE 2 IN STANDBY STATE
S1706
RESET POWER SUPPLY STARTING FACTOR
S1707
STOP POWER SUPPLY

FIG. 18


PROCESSING EX
POWER SWITCH 6 DEPRESSED
POWER SUPPLY DEVICE 7 STARTS POWER SUPPLY
S501
MAKE POWER SUPPLY CONTROLLER 13 INOPERABLE
S502
START UP HOST COMPUTER 3 IN NORMAL MODE
S1801
S503
ANY REMOVABLE MEDIUM 1 IN INFORMATION STORAGE DEVICE 2?
NO MEDIUM EXISTS
S506
SET INFORMATION STORAGE DEVICE 2 IN STANDBY STATE
MEDIUM EXISTS
S504
SET MEDIUM 1 IN RECORDABLE/REPRODUCIBLE STATE
PERFORM RECORDING/REPRODUCTION ACCORDING TO COMMAND FROM HOST COMPUTER 3
S505
CONTINUE POWER SUPPLY
S507